

ABSTRACT OF THE DISCLOSURE

The invention provides a resistance-heating element comprising a cylindrical heating portion and a pair of terminals formed on an outer peripheral surface thereof, wherein a thermal shield for cutting off radiant heat from said heating portion is joined to each terminal at a spacing from the outer peripheral surface, another thermal shield differing in polarity is opposed to the one thermal shield with an insulating space located therebetween, a thermal shield portion is found at a site other than both ends of a straight line for joining an end of the outer peripheral surface of the thermal shield that faces the insulating space with an end of an inner peripheral surface thereof or an end of an inner peripheral surface of the another thermal shield of different polarity, and an opposite thermal shield exists on a straight line that joins the ends of the outer and inner peripheral surfaces of the thermal shield that faces at least one of the insulating spaces. The invention also provides an electric resistance furnace comprising that heating element located at its center and a preheating element located around the heating element.